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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/051,846	01/17/2002	David Myatt Parker	C70334DI	3355
7590	12/23/2005		EXAMINER	
GLAXOSMITHKLINE Corporate Intellectual Property - UW2220 P.O. Box 1539 King of Prussia, PA 19406-0939			GRAFFEO, MICHEL	
			ART UNIT	PAPER NUMBER
			1614	
DATE MAILED: 12/23/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/051,846	PARKER, DAVID MYATT	
	Examiner	Art Unit	
	Michel Graffeo	1614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 10 November 2005.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1,3-13,22 and 27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1, 3-13, 22 and 27 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____.

DETAILED ACTION

Status of Action

Claims 1, 3-13, 22 and 27 are pending and examined.

Applicant has provided arguments for the patentability of claims 1, 3-13, 22 and 27 in the response filed 10 November 2005. Any rejection not specifically stated in this Office Action has been withdrawn.

Maintained Claim Rejections - 35 USC § 103

Claims 1, 3-13, 22 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 5,597,595 to DeWille et al. as previously applied, in view of US Patent No. 4,737,375 to Nakel et al.

DeWille et al. teach a composition containing a calcium compound, specifically calcium glycerophosphate, and an acidulant, specifically a mixture of citric and lactic acid (see Col 43 Example 7).

Nakel et al. teach beverages and beverage concentrates which are nutritionally supplemented with calcium, for example calcium carbonate (see Embodiment 2 Col 11). The beverages and concentrates also include edible acids such as citric, malic and phosphoric acid (see Abstract). Nakel et al. also teach that there "are two important factors with regard to the beverages and beverage concentrates of the present invention. One is the weight ratio of the total acids to calcium. For the purposes of the present invention, this weight ratio can range from 4 to 7." (see col 5 lines 20-25).

In their examples, Nakel et al. do not show a composition wherein the calcium is present in a value of about 0.5 mol per mol of acid.

Nakel et al. teach the optimization/modification of acid to calcium ratios such that the weight ratio of acids to calcium is from 4 to 7. By applying the teachings of Nakel et al. to DeWille et al. one skilled in the art would arrive at a composition with the claimed calcium/acid ratio as measured in moles. To demonstrate by way of example, if the amount of acid was doubled in DeWille et al. so that there was about a 4:1 ratio of acid to calcium (which is double (X2) of what Example 7 teaches in DeWille et al.) the following calcium to acid ratio would have resulted in:

$$\text{Lactic Acid} = 60\% \times 181\text{g} = 108\text{g}$$

$$108\text{g} \times 2 = 216\text{g}$$

$$216\text{g}/90\text{MW} = 2.4 \text{ mol}$$

$$\text{Citric Acid} = 130\text{g}$$

$$130\text{g} \times 2 = 260\text{g}$$

$$260\text{g}/192\text{MW} = 1.4 \text{ mol}$$

$$\text{Ascorbic Acid} = 10.5\text{g}$$

$$10.5\text{g} \times 2 = 21\text{g}$$

$$21\text{g}/176\text{MW} = .12 \text{ mol}$$

$$\text{Total mol of Acid} = 2.4 + 1.4 + .12 = 3.9$$

$$\text{Total mol of Calcium} = 1.39$$

$$\text{Ratio of Calcium to Acid} = 1.39 \text{ to } 3.9 \text{ or } .356$$

One of skill in the art would be motivated to combine DeWille et al. with Nakel et al. and as combined would make obvious the invention as claimed above. Both are directed to palatable and marketable liquid beverages and beverage concentrates having calcium as a nutritional supplement and additional acids such as lactic or citric acid. Thus, the claimed invention of the composition was within the ordinary skill in the art to make and use at the time it was made and was as a whole, *prima facie* obvious.

Response to Arguments

Applicant's arguments filed 10 November 2005 have been fully considered but they are not persuasive. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Moreover, the reason or motivation to modify the reference may often suggest what the inventor has done, but for a different purpose or to solve a different problem. It is not necessary that the prior art suggest the combination to achieve the same advantage or result discovered by applicant. *In re Linter*, 458 F.2d 1013, 173 USPQ 560 (CCPA 1972). In the instant case Nakel et al. modify the beverage to increase solubility of the calcium salts. Nonetheless, Nakel et al. do suggest modifying the beverage to arrive at a weight ratio of total acids to calcium of from 4 to 7. That suggestion to modify the weight ratios when applied to the example in DeWillis et al. brings one of ordinary skill in the art to the claimed composition.

Conclusion

No claim is allowed.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Graffeo whose telephone number is 571-272-8505. The examiner can normally be reached on 9am to 5:30pm Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Low can be reached on 571-272-0951. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

19 December 2005
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